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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/586,741

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EXAMINER

TRIEU, THERESA

ART UNIT

PAPER NUMBER

3748

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/586,741	Applicant(s) DOI ET AL.	
	Examiner Theresa Trieu	Art Unit 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on July 21, 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on July 21, 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>July 21, 2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Receipt and entry of Applicants' Preliminary Amendment filed on July 21, 2006 is acknowledged.

Claims 1-7 have been amended. Accordingly, claims 1-7 are pending in this application.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “drive shaft is inclined with respect to a horizontal plane of the swing compressor” recited in claim 5, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet”

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pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3, 4 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Masuda (Publication Number JP 06-147165).

Regarding claims 1, 3 and 4, as shown in Figs. 1-4, Masuda discloses a swing compressor comprising: a cylinder 1 defining a cylinder chamber 1a; a piston 2 of including a generally cylindrical-shaped roller 2 which orbitally revolves along an inner surface of the cylinder chamber and a blade 2a integrally formed with the roller which that is swingably held by the cylinder the roller having an inner circumferential sliding surface with a large-width portion (not numbered; however, clearly seen in Fig .2) configured to receive a heavy load and a small-width portion 21, 22 that is smaller in width than the large-width portion and is configured to receive a light load (see Fig. 2); and a drive shaft 3 having an eccentric portion 3a that is slidably fitted to an the inner circumferential sliding surface of the roller 2, the piston dividing a space inside of

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the cylinder into a suction chamber and a compression chamber and performs performing a swing motion by rotation of the drive shaft; wherein the small-width portion 21, 22 is provided on one side with respect to a longitudinally extending center plane, the including cylinder 1 includes a suction port 1b that communicates with the suction chamber along the one side; wherein the piston orbitally revolves along a horizontal plane; wherein the drive shaft 3 is placed along a vertical direction of the swing compressor.

5. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by JP (Publication Number JP 57-176686).

Regarding claim 1, as shown in Figs. 1-4, JP discloses a swing compressor comprising: a cylinder 4 defining a cylinder chamber; a piston 2 of including a generally cylindrical-shaped roller 2 which orbitally revolves along an inner surface of the cylinder chamber and a blade 9 integrally formed with the roller which that is swingably held by the cylinder the roller having an inner circumferential sliding surface with a large-width portion 8a configured to receive a heavy load and a small-width portion 8b that is smaller in width than the large-width portion and is configured to receive a light load (see Fig. 2); and a drive shaft 7 having an eccentric portion 7a that is slidably fitted to an the inner circumferential sliding surface of the roller 8, the piston dividing a space inside of the cylinder into a suction chamber and a compression chamber and performs performing a swing motion by rotation of the drive shaft.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Masuda.

Masuda discloses the invention as recited above; however, Masuda fails to disclose the small-width portion is formed over a range extending between a point located 30° from the reference line and a point located 180° from the reference line in a rotational direction of the drive shaft in the inner circumferential sliding surface. It would have been obvious to one having ordinary skill in the swing compressor art at the time the invention was made, to have utilized the range of the small-width portion, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 220F.2d 454,456, 105 USPQ 233, 235 (CCPA 1955) (see MPEP §2144.05).

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Masuda in view of design choice.

Masuda discloses the invention as recited above; however, Masuda fails to disclose the drive shaft being inclined with respect to a horizontal plane of the swing compressor. It is

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examiner's position that one having ordinary skill in the swing compressor art, would have found it obvious to have an inclined driveshaft as claim, since it is merely design parameters, depending on being used for a particular purpose or solving a stated problem. Moreover, there is nothing in the record which establishes that the claimed position of the driveshaft with respect to a horizontal plane of the swing compressor, presents a novel of unexpected result (See *In re Kuhle*, 526 F.2d 553, 188 USPQ 7 (CCPA 1975)).

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Masuda in view of Shimomura (Patent Number 4,904,302).

Masuda discloses the invention as recited above; however, Masuda fails to disclose a material which made up the piston.

Shimomura teaches that it is conventional in the swing compressor art to utilize a sintered material piston (see abstract – claim 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the piston being formed of a sintered material, as taught by Shimomura in the Masuda apparatus, since the use thereof would have improved wear resistance and fluid-tightness.

Prior Art

9. The IDS (PTO-1449) filed on July 21, 2006 has been considered. An initialized copy is attached hereto.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of three patents: Yamamoto (U.S. Patent Number 5,641,279), Kurita et al. (U.S. Patent Application Publication Number 2006-0153723) and Yagi (Publication Number JP 08-165995), each further discloses a state of the art.

Conclusion

11. Applicant is duly reminded that a complete response must satisfy the requirements of 37 C.F.R. 1.111, including: "The reply must present arguments pointing out the specific distinctions believed to render the claims, including any newly presented claims, patentable over any applied references. A general allegation that the claims "define a patentable invention" without specifically pointing out how the language of the claims patentably distinguishes them from the references does not comply with the requirements of this section. Moreover, "The prompt development of a clear Issue requires that the replies of the applicant meet the objections to and rejections of the claims." Applicant should also specifically point out the support for any amendments made to the disclosure. See MPEP §2163.06 II(A), MPEP §2163.06 and MPEP §714.02. The "disclosure" includes the claims, the specification and the drawings.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Theresa Trieu whose telephone number is 571-272-4868. The examiner can normally be reached on Monday-Friday 8:30am- 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on 571-272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TT

/Theresa Trieu/
Primary Examiner, Art Unit 3748